**03**

**a. Define Master-Slave replication. With a neat diagram, explain the advantages and disadvantages of master-slave replication.**

**b. In a distributed inventory system (scenario given), how can different version stamping methods be applied to track updates, and what are the advantages and disadvantages of each method?**

**c. What is the CAP theorem? Explain the trade-offs between its three properties in detail.**

**04**

**a. Identify the type of conflict in a given booking scenario. How can it be solved?**

**b. What is Sharding? With a neat diagram, explain the concept of sharding with an example.**

**c. Define Quorum. Explain how to read and write a quorum with examples.**